EH6216H Hybrid DVR

Key Features

- Embedded Linux
  16 Channel, True Hybrid DVR
- Hardware H.264 Compression
- Graphical User Interface
- D1 Real-time over 8 Channels
- Dual Gigabit LAN support

AVerMedia's EH6216H is a true hybrid DVR that fuses Linux reliability with a fully featured Graphical User Interface (GUI) designed for ease-of-use, high performance and exceptional image quality - at a great price. Perfect for deployments in small to medium businesses, the system utilizes existing analog infrastructure while allowing for future IP expansion.

The GUI - Built for Efficiency

As opposed to typical and laborious menu driven interfaces, the EH6216H's Graphical User Interface (GUI) maximizes user effectiveness while minimizing training time. The visual layouts and intuitive controls of the EH GUI, ensures that users can simply point-and-click to see who's entering the building, search through alarms for the week or take immediate command of an unraveling event!

Hybrid - The Power of Choice

Every channel of the EH's16 channels can be connected to either an analog or IP camera, with support for 50+ brands of IP cameras. For the miniscule percent of cameras that aren't supported yet, just notify AVerMedia and they will be integrated for free! No worrying about camera compatibility, no added licensing fees, no restrictions on IP channels – the AVerMedia EH truly defines hybrid.

H.264 - Revolution in Quality

Industry leading H.264 compression ensures that the EH drastically reduces video files sizes while maintaining the integrity and quality of images. Amplifying the benefits of H.264 is the EH's Hardware Compression that enhances system performance by utilizing very little PC CPU and RAM resources.

Search - Locate. Locate. Locate.

Having search features are meaningless if you cannot locate important video quickly and accurately. Along with parameter searches (date/time/event log), the EH includes Visual Search that breaks footage into image thumbnails that can be visually drilled down (hour/minute/second) to rapidly locate crucial events. The footage then can be exported or bookmarked for later retrieval.

The Features - Specialized Settings for Special Needs

Offices facing busy streets, stores in strip malls, schools with abundant trees - a few examples of facilities whose motion based recordings could eat up valuable storage space. One of the many solutions the EH offers is the Video Mask through which users can partition off areas from triggering motion based recordings. Other features include: robust remote access via iPhone, Blackberry and Windows mobile devices for the on-the-go security professional, Central Management Software for users with DVRs in multiple locations, POS video text overlay for retail users and more.

EH6216H Capabilities

SYSTEM

- System: Hybrid Linux OS
- Video compression: Hardware H.264
- Channels
  - Video - 16 Total: Analog (BNC) or IP (H.264/MPEG4/MJPEG streams)
  - Audio - 16 channel in, 1 channel out and 1 microphone
  - IP cameras suppport: 50+ brands (check support list)
    - › Up to 5 MP for 1 CH in H.264/MPEG4/MJPEG
    - › Total of 16 MP for all CHs in H.264/MPEG4/MJPEG
  - Individually adjust the resolution/frame rates for all analog channels
- Interface and Outputs
  - Award winning Graphical User Interface (GUI)
  - 1 VGA and 2 BNC spot outputs (1 alarm, 1 duplicate video)
  - 16 channel loop through outputs (analog cameras only)
  - 16 sensors /4 relays and up to 128 more with additional E-I/O box
- E-maps
  - Up to 8 E-maps (.jpg or .bmp)
  - Drag and Drop DVR/NVR locations (icons) on E-maps
  - Associated DVR/NVR icon will flash and turn red during an alam
  - DVR events are entered in the E-map alarm log
- Multi-language interface with variable date formats
- Integrated with a virtual on-screen keyboard
- Easy system and/or IP camera support updates via USB drives
- Schedule system functions including recording, backup, reboot, alarm and relay controls as a one-time or recurring weekly task
- Up to 32 user accounts with individually assigned passwords and user privileges (operation, control and remote access)

RECORDING

- Recording modes - Always, Smart*, Alarm (motion), No Recording
- Video Mask - Mask (partition off) areas from triggering motion based recordings
- Configurable to save up to 10 seconds pre-event and 10 minutes post-event recordings

*Smart (analog only) - activity based escalation of recording fps (low to high)

LIVE MONITORING

- PTZ: Analog/IP cameras with Zoom, Focus, Direction, Speed, Preset point & Auto-Pan (check support list for camera models)
- If there is video loss due to network failure, the system will continually try to reconnect to the DVR until video is restored
- Digital zoom incorporated for greater detail in live video

FORENSICS

Search

- Parameter search: date, time and event log file
- Advanced event log search with alarm, operation, system and network activities
- Visual Search - breaks footage into image thumbnails that can be visually drilled down (hour, minute, second)
- Time search to scroll through footage by moments
- Easy retrieval and playback of footage by "Bookmarking" significant segments

Playback

- Supports local and remote playback
- Users can segment and bookmark critical portions of recorded video for easy and rapid access to significant events

Export/Backup

- Easily export image to .jpg or video to .dvr
- Backup to DVR RW or USB

STORAGE

- Supports 3 (4th optional) SATA HDDs and 1eSATA HDD

VIDEO ENCHANCEMENTS

- iEnhance - color, noise and light manipulation
- iStable - smooths shaking and jolts
- Two types of de-interlace methods (for analog cameras): optimized for static or dynamic scenes for smoother images

ALARMS AND NOTIFICATIONS

- **Incoming Alarms:**
  - Unit events (video loss, DVR reboot, DVR HDD fail, etc.)
  - Monitoring events (Motion, Sensor)
  - Network events (connection loss/success)
- **Notifications:**
  - Enlarges alarmed camera's view and Launches E-Map
  - Repositions views to PTZ preset points
  - Sends emails and Plays audio alarms
  - Initiates DVR/IP camera relay protocols
  - Sends footage to spot monitor
  - Sends video to Central Management System

REMOTE MONITORING

Free DDNS and iDispatch (multicasts video streams to drastically lower network, server and camera loads for effective remote viewing)

- **Mobile:**
  - iPhone (iViewer): View live video
  - Blackberry (iBBViewer): View live video
  - Win Mobile (Smart Viewer): View live video
  - Win Mobile (PDAViewer): View Live/Recorded video, store multiple DVR log-ins, control PTZ, zoom and take video snapshots
- **Web and remote computers:**
  - Internet Explorer WebViewer: View live video
  - Remote Console (view Live/Recorded video and control PTZ, setup, E-maps, recording, playback, sensors/relays)
- **Multiple Systems: With CM3000 central management software, command up to 1000 remote systems from one central location**
  - Monitor with E-maps, record and playback
  - Control sensors and relays
  - Setup and modify DVR configurations

EH6216H Detailed Specifications

Front Panel Connections				
Front panel controls		Power switch, Keypad, PTZ Controls		
DVD writer		Included, supported medias: DVD±R, DVD±RW		
USB 2.0		3		
Rear Panel Connections				
Video Inputs (analog)		16 - Looping, BNC connectors		
Video Inputs (IP)		16 video H.264/MPEG4/JPEG data streams		
Video Output		1 - VGA out, 2 BNC Spots (1 alarm, 1 duplicate video)		
Audio Input/Output		16/1		
Microphone Input		1		
Alarm Inputs/Relay Outputs		16/4		
E-SATA		1		
USB 2.0		0		
Communication		1x - RS232, 1x - RS485		
AC Power		Power Adapter, 19V DC		
Unit				
Operating system		Embedded Linux		
Compression (analog)		Hardware: H.264		
Video Format	Analog	NTSC: 352 x 240 (CIF), 720 x 240 (Half-D1), 720 x 480 (D1)		
	IP	Up to 5MP for 1 CH in H.264/MPEG4/MJPEG		
		Total of 16MP for all CHs in H.264/MPEG4/MJPEG		
Recording Rates	Analog	Individually Adjustable (0 - 30fps for analog inputs)	CIF	480fps
			Half-D1	480fps
			D1	240fps
	IP	Per camera specifications		
Storage	Capacity	Supports up to 3 Internal SATA HDD (4th Optional)		
	eSATA	1 eSATA connector, Support eSATA RAID		
Communication Ports	RS 485	1, Terminal block, Tx+, Tx-, Rx+, Rx-		
	RS 232	1, 9 Pin, Male		
Network (Ethernet (RJ-45))		2 Gibabit LAN - 10/100/1000 Base-T Ports		
Supported IP cameras (support IP PTZ, IP IO, & IP audio if IP cameras built-in)		AXIS, Panasonic, SONY, Arecont, Mobotix, BOSCH, IQinvision, JVC, TOSHIBA, VIVOTEK, ACTi, D-Link, PiXORD, PELCO, Apron, Lilin and more		
Operator Interface		USB mouse, USB PC keyboard, Remote controller (supports optional IR extension cable)		
Browser/Remote Client		MS Internet Explorer 6+, Windows 2000, XP, VISTA		
Mechanical				
Dimensions (H x W x D)		2.6 x 16.9 x 14.5in		
Weight		10 lbs (not including optional HDD)		
Rack Mountable		Optional rack ears		

Software		
Interface		Graphical user Interface (world's first in Emb. Linux)
Account Administration		Up to 32 accounts with configurable user privileges
Camera Administration		Individually adjust fps/resolution per analog camera
PTZ Control		Zoom-in/Zoom-out, Focus-in/Focus-out, Direction, Speed, Preset point, Autopan
De-interlace options		Optimize for dynamic or static analog scenes
Playback Administration		Playback while recording or setup
		Play, rewind, fast-forward, frame-by-frame control
		Digitally zoom to specific regions on recorded video
		Export single frame to .jpg, export video clip to .DVR
Motion Detection		Configurable to sense mass/motion; can partition off areas in monitoring regions from motion triggers
Event Recording		Schedule: Continuous, Smart, Motion, Alarm, Manual
Video Event Search		Visual Search, date/time, camera, event & log files
Advanced Event Log		Full event, operation, system & network activities log
Alarm Notifications		Launch or send E-map, relay, video capture, CM3000 or E-mail notification
E-map Display		Positions of cameras, sensors, relays & event status
iEnhance		Enhance video quality such as Brightness/Contrast/ Hue/ Saturation/ Sharpness/ Noise Reduction/De-interlace/ Gray Scale of recorded video
iStable		One-click fix for shaky video caused by camera movement (such as wind or vandalism)
Remote Management		
Central Management		CM3000 software - supports up to 1000 DVRs
Remote DVR connectivity		WebViewer (MS Internet Explorer only), Remote Console, JavaViewer, PDAViewer
Dispatch Server		Balance NVR communication for added client access and greater data transfer speeds
DDNS		Allow remote clients to search dynamic servers without enquiring for server's IP address
Environmental		
Temperature	Operating	32 ° to 104 °F
	Storage	-22°F to 140 °F
Relative humidity	Operating	50%-80%
	Stored	90%
Regulatory		
Emissions		FCC: Part 15, Class A
Warranty		
2 Year Limited Parts and Labor		

EH Series Hardware Recommendations

NOTE: We highly recommend against using Samsung Hard Disk Drives for SA, XR and EXR DVR products.

SATA HDD: (the below are recommended, but most SATA HDDs will work with a 2TB max)

Brand	Model	Capacity
Hitachi	HDT725050VLA360	500GB
	HDP725050GLA360	500GB
	HDT721010SLA360	1TB
	HUA722020ALA330	2TB
Seagate SV35.35	ST3500410SV	500GB
Seagate SV35.3	ST31000340SV	1TB
	ST31000525SV	1TB
Seagate SV35.2	ST3500630SV	500GB
	ST3750640SV	750GB
Seagate	ST32000542AS	2TB
	ST32000641AS	2TB
WD	WD3200AVVS-63L2B0	320GB
	WD7500AACS-00ZJB0	750GB
	WD10EADS-22L5B1	1TB
	WD20EARS-00S8B1	2TB
	WD2001FASS-00U0B	2TB

PTZ Camera (visit our website support/download page for a complete list)

Brand	Product Number
AmericanDynamics	UltraS - all products
Canon	VC-C4R
CD55	all products
DiGiDome	DRX -502A (DOH-240)
DMP23-H2	DMP23-H2
DynaColor	All products
Eastel	all products
ELMO	PTC -200C
Fastrax II	HID-2404
JVC	TK-C676 / TK-C675
Lilin	PIH 717X / 7000 / 7600 / PIH 7622/ 7622DH / 7635DH
MD101	all products
MicroJack-P	all products
NiceCam	all products
Panasonic	WV-CS850 / WV-CW860 / WV-CS950 / CS850B / CW860A / WV-CZ352
Pelco	Pelco-D/ Pelco-P
Philps	TC8560, TC700
SamSung	SCC-641
Sony	15-CZ45-1 /EVI-D70P
Yoko	all products

Raid System

Brand	Product Number
Stardom	SR3610-2S-SB2
AVerDigi	RA4000e

BASIC REQUIREMENTS FOR MOBILE APPLICATIONS

PDA Phones

Notice: This feature is only available on AP versions 5.1 or above. For customers who are using 5.0 version of AP, please visit the Support/Download page to download and upgrade to the latest version of AP

1. CPU: Arm architecture, for example, Intel Xscale.
2. OS: MS Window Pocket PC 2002/2003 or Mobile 5 and above.
3. GPRS or WLAN module is recommended.

Windows Mobile Smartphones

Notice: This feature is only available on AP versions 5.7 or above. For customers who are using v.5.5, v5.1 or v5.0 version of AP please visit the Support/Download page to download and upgrade to the latest version of AP

1. CPU: Arm architecture, for example, Intel Xscale.
2. OS: Windows-base, Windows Mobile 2002/2003 for Smart Phone Edition or Windows Mobile version.
3. Network module such as WAP,GPRS,WLAN....etc is required .

Symbian Smartphones

Notice: This feature is only available on AP versions 7.1 or above. For customers who are using v5.7, v.5.5, v5.1 or v5.0 version of AP please visit the Support/Download page to download and upgrade to the latest version of AP

1. OS: Symbian Smartphone
2. The OS needs to support JAVA MIDP 2.0 (JAVA2 ME)
3. Network module such as WAP, GPRS, WLAN, etc is required.

*Hardware recommendations are the minimum required hardware specifications for running our systems and not a guarantee to achieve the best performance of our DVR systems. Hardware specifications required to achieve the best performance of our DVR systems are subjected to different system settings and operation conditions.